

WHAT IS CLAIMED IS:

1. An OLED device having green emitting regions disposed over a substrate, and wherein each green emitting region includes:
 - a) one or more light-emitting layer(s);
 - b) a reflector and a semitransparent reflector respectively disposed on opposite sides of the light-emitting layer(s) and arranged to resonate light produced by such layers such that the light has a substantial green spectral component; and
 - c) a yellow color filter element disposed in relationship to each green emitting region to produce green light.
2. The OLED device of claim 1 wherein each yellow filter element is selected to have a cut-off wavelength between 475 nm and 560 nm and at visible wavelengths greater than the cut-off wavelength to at least 700 nm, the transmittance of the color filter element is greater than at the transmittance at the cut-off wavelength and at visible wavelengths lower than the cut-off wavelength to at least 400 nm the transmittance of the color filter element is less than at the transmittance at the cut-off wavelength.
3. The OLED device of claim 1 wherein each yellow filter element is selected to have a cut-off wavelength between 475 nm and 560 nm and at visible wavelengths greater than the cut-off wavelength the transmittance of the color filter element is greater than at the transmittance at the cut-off wavelength and at visible wavelengths lower than the cut-off wavelength the transmittance of the color filter element is less than at the transmittance at the cut-off wavelength.

4. The OLED device of claim 1 wherein the filter has a cut-off wavelength of between 490 nm and 540 nm.

5. The OLED device of claim 1 where the emitting region produces light having a green color and a peak light emission between 490 nm and 570 nm at a normal angle to the substrate.

6. The OLED device of claim 5 which has a peak light emission between 500 nm and 550 nm at a normal angle to the substrate.

7. The OLED device of claim 1 where the reflector, the semitransparent reflector, or both, also serve as electrodes for the light-emitting layers.

8. The OLED device of claim 1 where the semitransparent reflector includes Ag or an alloy containing Ag.

9. The OLED device of claim 7 which further comprises one or more emitting regions perceived to emit red light and one or more emitting regions perceived to emit blue light.

10. The OLED device of claim 1 which is configured to be a top emission device.

11. An OLED device having green emitting regions and red emitting regions disposed over a substrate and wherein each green emitting region includes:

- a) one or more light-emitting layer(s);
- b) a reflector and a semitransparent reflector respectively disposed on opposite sides of the light-emitting layer(s) and arranged to resonate light produced

by such layers such that the light has a substantial green spectral component, and each red emitting region includes:

- i) one or more light-emitting layer(s);
- ii) a reflector and a semitransparent reflector respectively disposed on opposite sides of the light-emitting layer(s) and arranged to resonate light produced by such layers such that the light has a substantial red spectral component; and
- iii) a yellow color filter element disposed in relationship to each green and red emitting region so as to produce green and red light respectively.